



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,343	01/21/2004	Tsai-Yun Yu	YUTS3016/EM	2777
23364	7590	05/19/2005	EXAMINER	
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314				NELSON JR, MILTON
ART UNIT		PAPER NUMBER		
				3636

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/760,343	YU, TSAI-YUN
	Examiner Milton Nelson, Jr.	Art Unit 3636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 March 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5 and 7-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5 and 7-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 March 2005 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The proposed corrected or substitute drawings received on March 8, 2005 have been approved. Formal corrections are required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-5 and 7-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The dependent claims 4, 5, 7, 11 and 14 set forth the shock-absorbing member as including thermoplastic urethane. Such appears to contradict the independent claims, which set forth the shock-absorbing member as non plastic. An adequate written description of the invention is lacking. Applicant has argued that the phrase "non plastic composite materials", as set forth in the independent claims, can represent plastic, non-composite materials, however this does not appear supported by

the originally filed specification. The scope of this phrase is vague, as non plastic composite material appears to represent a composite material that is made of other than plastic.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 15, the phrase "(PCM)" renders the claim indefinite because it is unclear whether the subject matter enclosed by the parentheses is part of the claimed invention. In line 3 of claim 15, the recitation "the sitting are of the" is grammatically vague.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bigolin (2003/0164629) in view of France (2626756). Bigolin shows all claimed features of the instant invention with the exception of the shock-absorbing member

being made of non plastic composite materials having a hardness lower than that of the body. In Bigolin, note the body (2), a layer (8) of plastic composite material (epoxy resin), opening (11), shock-absorbing member (9), fiber-reinforced plastic (see paragraph 0034) prepreg (see paragraph 0046), thermosetting resin (see paragraph 0046), and carbon fiber-reinforced plastic (see paragraph 0034) prepreg.

France (2626756) teaches the concept of configuring a shock-absorbing member as made of non plastic composite materials (note the recitation "from plastic foam or another flexible composite material"). Note that this feature is a cushion. As such, this would necessarily have a hardness that is lower than that of the rigid body of Bigolin.

It would have been obvious to one having ordinary skill in the pertinent art at the time of the instant invention to modify Bigolin in view of the teachings of France (2626756) by replacing the shock absorbing member with one that is made of non plastic composite materials having a hardness lower than that of the body. Such enhances user comfort, stability and support.

Claims 1-5, 8, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bigolin (2003/0164629) in view of Barton et al (6234578). Bigolin shows all claimed features of the instant invention with the exception of the shock-absorbing member being made of non plastic composite materials having a hardness lower than that of the body (claim 1); the shock-absorbing member being made of a thermoplastic material (claim 4); the shock-absorbing member being made of thermoplastic urethane (claim 5); the shock-absorbing member being a thermoplastic

film adhered to a top surface of the body (claim 11). In Bigolin, note the body (2), a layer (8) of plastic composite material (epoxy resin), opening (11), shock-absorbing member (9), fiber-reinforced plastic (see paragraph 0034) prepreg (see paragraph 0046), thermosetting resin (see paragraph 0046), and carbon fiber-reinforced plastic (see paragraph 0034) prepreg.

Barton et al teaches the concept of configuring a shock-absorbing member (64) as made of non plastic composite materials (thermoplastic elastomer, or thermoplastic elastic olefin, or thermoplastic urethane). Also note that the materials of Barton et al are non composite materials. Note that this feature is a cushion. As such, this would necessarily have a hardness that is lower than that of the rigid body of Bigolin.

Regarding claims 1, 4 and 5, it would have been obvious to one having ordinary skill in the pertinent art at the time of the instant invention to modify Bigolin in view of the teachings of Barton et al by replacing the shock absorbing member of Bigolin with one that is made of non plastic composite materials (thermoplastic elastomer, or thermoplastic elastic olefin, or thermoplastic urethane) having a hardness lower than that of the body, in order to enhance user comfort, stability and support. Regarding claim 11, note that the thermoplastic elastic olefin is a thermoplastic film. It would have been further obvious to modify Bigolin in view of the teachings of Barton et al by adhering the film to a top surface of the body. Note that Barton et al accomplishes this by insert molding. Such provides an alternate, and conventional manner for attaching the shock absorbing member to the supporting body member.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bigolin (2003/0164629) in view of France (2626756). Bigolin shows all claimed features of the instant invention with the exception of the shock-absorbing member being made of non plastic composite materials having a hardness lower than that of the body. In Bigolin, note the body (2), a layer (8) of plastic composite material (epoxy resin), opening (11), shock-absorbing member (9), retainer (surface area of 9), fiber-reinforced plastic (see paragraph 0034) prepreg (see paragraph 0046), and carbon fiber-reinforced plastic (see paragraph 0034) prepreg.

France (2626756) teaches the concept of configuring a shock-absorbing member as made of non plastic composite materials (note the recitation "from plastic foam or another flexible composite material"). Note that this feature is a cushion. As such, this would necessarily have a hardness that is lower than that of the rigid body of Bigolin.

It would have been obvious to one having ordinary skill in the pertinent art at the time of the instant invention to modify Bigolin in view of the teachings of France (2626756) by replacing the shock absorbing member with one that is made of non plastic composite materials having a hardness lower than that of the body. Such enhances user comfort, stability and support.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bigolin (2003/0164629) in view of Barton et al (6234578). Bigolin shows all claimed features of the instant invention with the exception of the shock-absorbing member being made of non plastic composite materials having a hardness lower than

that of the body. In Bigolin, note the body (2), a layer (8) of plastic composite material (epoxy resin), opening (11), shock-absorbing member (9), retainer (surface area of 9), fiber-reinforced plastic (see paragraph 0034) prepreg (see paragraph 0046), and carbon fiber-reinforced plastic (see paragraph 0034) prepreg.

Barton et al teaches the concept of configuring a shock-absorbing member as made of non plastic composite materials (thermoplastic elastomer, or thermoplastic elastic olefin, or thermoplastic urethane). Also note that the materials of Barton et al are non composite materials. Note that this feature is a cushion. As such, this would necessarily have a hardness that is lower than that of the rigid body of Bigolin.

It would have been obvious to one having ordinary skill in the pertinent art at the time of the instant invention to modify Bigolin in view of the teachings of Barton et al by replacing the shock absorbing member with one that is made of non plastic composite materials having a hardness lower than that of the body. Such enhances user comfort, stability and support.

#### ***Allowable Subject Matter***

Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

***Response to Amendment/Arguments***

Applicant's response has been fully considered. Remaining issues are described in the above sections. All previous issues have been overcome, with the exception of those described above. Claims 4, 5, 7, 11 and 14 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Applicant argues that the independent claims require that the shock-absorbing member be a "non-plastic composite material", and not a "non-plastic" composite material. Applicant argues that the claims require that the shock-absorbing member be a material other than a plastic composite material. The shock-absorbing member may be plastic, but not a plastic composite, and that thermoplastic urethane is consistent since it is not a composite. This language is vague since "non-plastic" defines "not being made of plastic". It is unclear how the recitation "non-plastic composite material" can define anything but a composite material that is not made of plastic. The independent claims fail to set forth a "non-composite" material. The independent claims set forth a "non-plastic composite material", i.e. a composite material that is not made of plastic. This is analogous to "a non-liquid food material", which clearly defines a food material that is not a fluid, i.e. the food material is solid. This cannot define that the material can be a liquid, but is not a food. Regarding the application of Bigolin, as modified by France (2626756), Applicant argues that the secondary reference teaches use of plastic foam or another flexible composite material. This clearly represents a non-plastic composite material. Applicant argues that France (2626756) fails to teach the use of a non-plastic composite material,

and teaches away from using such a material by reciting the use of a composite material. The instant application fails to disclose or claim use of a non-composite material, as discussed above. In response to Applicant's argument that France (2626756) is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. Clearly France (2626756) is from the field of Applicant's endeavor, which is cushioning and human support. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. All rejections are proper.

Prior art has not been applied against claims 7 and 14, however note the rejections under 35 USC 112.

### ***Conclusion***

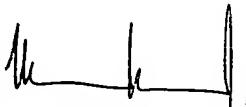
This Office action has not been made final since it includes a new grounds of rejection not necessitated by amendment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Milton Nelson, Jr. whose telephone number is

5712726861. The examiner can normally be reached on Monday-Wednesday, and alternate Fridays 5:30-3:00.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Milton Nelson, Jr.  
Primary Examiner  
Art Unit 3636

mn  
May 13, 2005